

IN THE CLAIMS

Please amend the claims as noted.

1.(Original) An apparatus for treating dry eye conditions comprising:

a pair of soft, pliable, curved lenses, each of said lenses maintained within a soft, pliable frame;

a soft, pliable gasket on a back portion of each of said frames, said gasket designed to substantially encircle and contact the orbital bone of an eye socket of the wearer;

a bridge coupling said frames; and

a flexible, contoured strap having two end portions and a center portion, wherein said two end portions are coupled to said frames and said center portion is designed so as to maintain said apparatus on a wearer;

said apparatus adapted and constructed to increase or maintain the humidity around the eyes of the wearer by reducing the evaporation of natural or artificial tears, or added moisture, and by increasing or maintaining the temperature around the eyes of the wearer.

2.(Original) The apparatus of claim 1, further comprising a moisture pad adapted to be maintained between said apparatus and the eyes of the wearer, said moisture pad designed and constructed to aid in increasing or maintaining the humidity around the eyes of the wearer.

3.(Original) The apparatus of claim 2, wherein said moisture pad is formed of an endothermic or exothermic material.

4.(Original) The apparatus of claim 2, wherein said moisture pad is formed of a visco-elastic foam.

5.(Original) The apparatus of claim 1, wherein each of said lenses and said frames are formed as unitary structures.

6.(Original) The apparatus of claim 1, wherein said lenses, said frames, and said bridge are formed as a unitary structure.

7.(Original) The apparatus of claim 1, wherein said lenses and said frames are each formed of flexible polyurethane.

8.(withdrawn) The apparatus of claim 1, wherein said lenses are removable from said frames.

9. (Original) The apparatus of claim 1, wherein said lenses are opaque.

10.(Original) The apparatus of claim 1, wherein said lenses are translucent.

11.(Original) The apparatus of claim 1, wherein said lenses are colored.

12.(withdrawn)The apparatus of claim 1, wherein said lenses comprise a textured surface.

13. (Original) The apparatus of claim 1, wherein said gaskets are formed of visco-elastic foam.

14. (Withdrawn)The apparatus of claim 1, wherein said gaskets are removable from said frames.

15.(Original) The apparatus of claim 1, wherein said gaskets are formed of an endothermic or exothermic material.

16.(Original) The apparatus of claim 1, wherein said gaskets are at least partially covered with a fabric.

17.(Original) The apparatus of claim 1, wherein said center portion of said strap is wider than said two end portions of said strap.

18.(Original) The apparatus of claim 17, wherein said strap is formed of a four-way stretch polyester blend.

19.(Original) An apparatus for treating dry eye conditions comprising:

a pair of soft, pliable, curved eyecups, each of said eyecups designed and constructed to substantially encircle and contact the orbital bones of the eye sockets of the wearer, while minimizing tissue pressure and occlusion of the blood and lymphatic vessels in the orbital area, so as to comfortably increase or maintain the humidity around the eyes of the wearer by reducing the evaporation of natural or artificial tears, or added moisture, and by increasing or maintaining the temperature around the eyes of the wearer.

20.(Original) The apparatus of claim 19, further comprising a visco-elastic gasket positioned on each of said eyecups.

21.(Original) The apparatus of claim 19, further comprising a moisture pad adapted to be maintained between said eyecups and the eyes of the wearer, said moisture pad designed and constructed to aid in increasing or maintaining the humidity around the eyes of the wearer.

22.(Original) An apparatus for treating dry eye conditions comprising:

a pair of soft, pliable, curved eyecups, each of said eyecups designed and constructed to substantially encircle and contact the orbital bones of an eye socket of the wearer;

a thin, soft elastic strap having two end portions attached to said eyecups and designed so as to maintain the apparatus on the wearer; and

wherein said eyecups and strap each are formed of specific flexible materials such that said apparatus can be adjusted in the as worn position so that the dynamic tension between the eyecups and the strap provide a comfort level associated with a maximum 50% IFD of said eyecups while the humidity proximate the eye sockets of the wearer.

23. (Original) The apparatus of claim 22, further comprising a pair of visco-elastic gaskets positioned on said eyecups, wherein said gaskets provide an effective seal around the eye sockets of the wearer.

24.(Original) An apparatus for treating dry eye conditions comprising:

a pair of soft, pliable, curved lenses, each of said lenses maintained within a soft, pliable frame;

a soft, pliable gasket on a back portion of each of said frames, said gasket designed to substantially encircle and contact the orbital bones of an eye socket of the wearer;

a bridge coupling said frames;

said apparatus adapted and constructed to increase or maintain the humidity around the eyes of the wearer by reducing the evaporation of natural or artificial tears, or added moisture and by increasing or maintaining the temperature around the eyes of the wearer.

25.(Original) A method for treating dry eye conditions comprising: providing an apparatus formed of soft, pliable materials and designed and constructed to substantially encircle and contact the orbital bones of an eye socket of the wearer, and

placing said apparatus on a sufferer of dry eye conditions for an effective amount of time.

26.(Original) The method according to claim 25, further comprising adding a moisture solution to said apparatus.

27.(Original) The method according to claim 25, further comprising providing a moisture pad adapted and constructed to be insertable between said apparatus and the eye sockets of the wearer.

28.(Original) The method according to claim 27, further comprising moistening, heating or cooling said moisture pad.

29. (Original) The method according to claim 27, further comprising adding a medicinal solution to said moisture pad.

30. (Canceled)

31. (Canceled)

Claim Rejections under 35 USC §103

The Examiner has rejected claims 1-3, 5-11, 13, 15-16, and 25-31, as unpatentable per Schwebel (published application) in view of Rhoades.

The Examiner indicates that Applicant has not established the criticality of soft, curved, lenses.

At page 4, paragraph 10, it is expressly noted that a rigid lens, and body design, is inherently uncomfortable and unwanted by Applicant in that it will create pressure on the face and eye socket of the wearer. As noted, on page 5, at the top of the page, these conventional designs with rigid lenses and bodies, cut off capillary blood vessels surrounding the eye which is something Applicant seeks to prevent, by using both soft, pliable, curved lenses, engaged with soft pliable frames.

The importance of using this soft pliable structure for lens and eyecup (frame) is taught by Applicant at paragraphs 42 and 43, wherein it notes the design of applicant's device minimizes pressure on the points where applicant's invention meets the face (and capillaries and blood vessels) especially when the user lies on a pillow face down. If rigid walls are used as in the prior art, the pressure from the entire frontal surface area of the device, is transmitted from the surface area of the rigid lenses to the rigid sidewalls, and communicated to the contact points of the sidewalls on the face.

However as noted in paragraph 49, at page 12, and through paragraph 51, comfort and the reduction of pressure points in the contact area, was the primary criteria used in Applicant's design and employment of soft pliable lens and frame materials. As noted above, the use of these soft pliable materials reduces capillary blockage and other hazards caused by, and amplified by the rigid design for the lenses, taught by Schwebel. Through using soft pliable material for lenses and eyecups, Applicants frame, and lenses, will fold rather than communicate surface pressure and even if collapsed. The pliable nature of the material will pad the facial structures.

Still further, as further noted in paragraph 51, when the user is face down, the unique design of Applicant's device with soft pliable lenses and frame, eliminates the additional loading created by the face on the pillow. With the claimed soft, pliable lenses and frame, the surface of the lens cannot multiply the force imparted by the frame to the contact point on the face since the lense will bend, or collapse.

The cited art of Schwebel conversely calls for frames and temples similar to those of conventional eyeglasses, and the rigid lenses as would be similar to those of conventional eyeglasses. (Page 3, paragraphs 42 and 43). The design taught by Schwebel in a similar face down position where loading is increased by surface area of contact and head weight, will impart the force from the entire surface area of the lenses to the frame

and then to the very small contact area on the face of the user. This teaches a construction with a resulting function that is opposite of Applicant's device which mitigates pressure points and additional loading by using soft pliable lenses and frames.

In addition to lacking soft curved lenses, Schwebel, also lacks Applicant's claimed a curved shape. The Examiner notes this fact and indicates that it would be obvious to curve the lens to adapt it for mounting in a chosen frame in which they mount.

Applicant however, states clear reasoning for the inclusion of the highly curved surface of the soft lenses that is neither taught or suggested by the prior art, or by the Examiner's conclusion. As noted in paragraph 58 of the specification, Applicant uses an eight-base curvature to create a humidity chamber above the wearer's eyes, and to allow a space in front of the user's eyes for blinking. This is shown in Figure 4, of Applicant's drawings where the soft, pliable lenses 12, have a base curve that projects them in front of the frames.

The Dictionary of Visual Science defines the base curve in eyeglass lenses as the standard or reference surface in a lens classified by (varying) nomenclature as having a given base curve. In simpler terms, the base curve is the single front surface of a lens, measured in diopters over the distance portion of a lens. The base curve is a measure of how steep the central portion of the lens is. The lower the number the flatter the

base curve and conversely the higher the number the steeper the base curve.

Here, the curved lens as claimed and taught by the Applicant is at a steep base curve to increase the surface area of both lenses to yield chambers that are both in front of, and above, the eyes of the user when the apparatus in the "as worn" position on their head. Further, the employment of soft pliable material eliminates the risk of increased loading the increased surface area would cause if the lenses were rigid as taught in the prior art.

Finally, the Examiner cites Rhodes for the element of a pliable frame indicating it would be obvious to include the pliable frame of Rhodes with the elements of Schwebel.

Applicant claims a soft, and pliable frame for the above noted reasons of comfort and avoidance of facial compression caused by increased loading of a head face down on a pillow. Applicant as noted also has soft, pliable, curved lenses.

Rhoades teaches a frame sufficiently pliable only to bend and conform to the contours of the human face when used as a waterproof goggle. However, while Rhodes may be pliable enough to bend around the front of the face, it is not soft since it must support the rigid lenses, in the proper as-worn position, when the tensioning strap is removed and the temples installed. (See column 5, lines 13-20). Consequently Rhoades is only sufficiently pliable to bend around the front of a face but is still rigid enough to support the rigid lenses when the device is

used as standard eye glasses with hinged temples.

Applicant for the above noted reasons claims a soft, and pliable frame to reduce the compression on the face when the user is face down on a pillow. Applicant's soft and pliable frame, need only engage a soft and pliable lenses and need not support those lenses as eyeglasses when the tensioning strap is removed. The cited art makes no such teaching and in fact, because of its requirement to engage and hold the rigid optical quality lenses over the nose and in front of the eyes, and to engage temples with a hinge when the strap is removed, it cannot be soft, and also as pliable as claimed and taught by Applicant. The frame of Rhodes is not soft as claimed and taught by applicant, and must be sufficiently rigid to hold the rigid lenses taught by Rhodes, in a registered viewing position in front of the eyes when just the temples hingedly engaged.

"Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under section 103, teachings of references can be combined only if there is some suggestion or incentive to do so. The prior art of record fails to provide any such suggestion or incentive. Accordingly, we hold that the court below erred as a matter of law in concluding that the claimed invention would have been obvious to one of ordinary skill in the art under section 103. (ACS Hospital Systems, Inc. v. Montefiore Hospital et alCA FC 221 USPQ 929 at 933,1984)

There is no teaching in either cited reference to use soft curved lenses. Neither is there a teaching or suggestion to curve the soft lenses for the purpose of projecting outward from the soft frame and thereby form a cavity above, and in front of the eye.

Schwebel teaches just to opposite by using flat, rigid lenses which will increase the force communicated to the rigid frame and then to the face, when the user lies face down. R

Rhoades also teaches the use of rigid prescription style eyeglass lenses that must be engaged in a frame that is rigid enough to support the lenses in front of the eyes and to hingedly engage and support the front of two temples.

The cited prior art thus fails to provide any such suggestion of these elements of Applicant's device, or any incentive to do so since both components function quite differently and are constructed in a manner to do so.

As such, the Examiner's objection to claim 1-3, 5-11, 13, 15-16, 25-31, per Schwebel in view of Rhoades is respectfully traversed since both lack elements and function of Applicant's device and neither can be combined with the other to yield Applicant's device. Claims 17 and 18 also depend from claim 1 and thus should also be allowable.

As to claim 19, it is noted above, that Applicant did establish the reasons for soft and pliable eyecups to minimize loading. Schwebel ignores this problem and the element of soft and pliable eyecups to minimize it. Claims 20 and 21 depend therefrom and should also be allowable since claim 19 has elements neither claimed or suggested in Schwebel.

As to claim 22 and dependant claim 23, the same holds true in that Applicant's claimed soft and pliable and curved eyecups minimize loading on the face of the user and provide an eye chamber both in front of and above the eye of the user as noted above. Schwebel as noted lacks any teaching of either and the ability to provide this function.

Claim 24 also includes the soft, pliable, curved lenses, and for the same reasons, has different structures providing improved and different functions than Schwebel. Claims 25-29 depend therefrom and should also be allowable since claim 24 has elements and structure neither taught or suggested in Schwebel which teaches against applicant's device.